

CLAIMS

1. A disc-shaped tool in which a plurality of virtual regions so formed as to be surrounded by two radius lines extending from a rotation center of a disc-shaped base metal and two concentric circles on the base metal disposed around the rotation center is disposed continuously in a circumferential direction on the disk-shaped base metal while a single slit is provided in each one of virtual regions so as to make contact with all of the two radius lines and two concentric circles,  
wherein

a central angle formed by the two radius lines is equal to or less than  $90^\circ$ ;

the virtual regions are 4 to 24 in number;

the concentric circle located in a center of an interval of the two concentric circles forming the virtual region is in a range of  $0.6r$  to  $0.8r$  with respect to the rotation center of the base metal when a maximum gullet bottom radius of the base metal is  $r$ ;

an overlapping of the virtual regions continuously adjoining each other is in a range of  $0^\circ$  to  $12^\circ$  in terms of the central angle around the rotation center;

a minimum neighborhood distance between the adjoining slits is equal to or more than  $0.05r$ ;

and a ratio of a length of an arc of the central concentric circle in the virtual region with respect to the interval of the two concentric circles in the virtual region is 3 to 6.

2. The disc-shaped tool according to claim 1 wherein the plurality of virtual regions has the same shape.

3. The disc-shaped tool according to claim 2 wherein the slits formed in the plurality of virtual regions is of the same shape.